Title (en)

EFFICIENT MULTI-VIEW CODING USING DEPTH-MAP ESTIMATE AND UPDATE

Title (de)

EFFIZIENTE MEHRFACHANSICHTSCODIERUNG MIT TIEFENKARTENKALKULATION UND -AKTUALISIERUNG

Title (fr)

CODAGE MULTI-VUES EFFICACE UTILISANT UNE ESTIMÉE DE CARTE DE PROFONDEUR ET UNE MISE À JOUR

Publication

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Application

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Priority

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Abstract (en)

[origin: WO2013068547A2] The missing of a depth map for a current picture of a reference view - due to the transmission thereof being not anticipated anyway, or due to the preferred coding order between a texture/picture and its depth map, or due an anticipated discarding of depth data from the bitstream during transmission or decoding - may be adequately addressed so as to reduce inter-view redundancies by estimating a depth map for the pictures of the reference and dependent views and updating same using motion and/or disparity data signaled within the multi-view data stream. In particular, virtually all multi-view data streams have random access points defined therein, i.e. time instances corresponding to pictures of the views of the multi-view signal which are coded without temporal prediction and other dependencies to previously coded pictures, but merely using intra prediction as far as the reference view is concerned, and intra prediction as well as disparity-based prediction as far as the dependent view is concerned. Accordingly, the disparity data signaled within the multi-view data stream for inter-view prediction is exploited to initialize a depth map estimate for the dependent view, and this primary depth map estimate is consecutively updated during the further course of the multi-view coding using motion data and/or disparity data signal within the multi-view data stream. The thus obtained depth map estimate continuously updated, enables the dependent various methods of inter-view redundancy reduction to be performed in a more efficient way than without having access to this depth map estimate. According to another aspect, the following discovery is exploited: the overhead associated with an enlarged list of motion predictor candidates for a block of a picture of a dependent view is comparatively low compared to a gain in motion vector prediction quality resulting from an adding of a motion vector candidate which is determined from an, in disparity-compensated sense, co-located block of a reference view.

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CPC (source: EP KR US)

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